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WILD FLOWERS.  
AZALEA NUDIFLORA.      \*      HOUSTONIA COERULEA.





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OCTOBER, 1886.

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THE ANNUAL MEETING of the Society of American Florists was held in Philadelphia, in August, commencing on the eighteenth and lasting three days. About six hundred florists from all parts of the country were present. The meetings were held in Horticultural Hall. The Society was formally welcomed by the Mayor, after which the President, JOHN THORPE, read an address, in which he said:

"I greet you with an unbounded satisfaction. I am proud to say that the two-year-old seedling is developing finely and already shows signs of bearing good fruit. When the Society gets more deeply rooted I hope to see one of its branches shaped into an experimental garden, where inventions of all kinds may be displayed. Another branch should be the establishment of local exhibitions where new and desirable flowers and plants shall be reported upon, and I hope to see established on a firm basis a benevolent association which shall afford protection for members overtaken with affliction. The unfortunate labor troubles during the spring caused a falling off in the sale of market plants. The sale of cut flowers has been greater than ever. Stocks of the finest quality never sold higher on the average, and it truly can be said that stock of poor quality never sold lower.

"The backbone of the florist's business has been much strengthened the past few years by the accession of so many gentlemen having a taste for floriculture and the means to gratify it. It is to this class that we have to look for our best support. Many build fine houses, lay their grounds out tastefully and at once begin to look around for something more. First, perhaps a half dozen Roses and the same number of shrubs are bought of some itinerant agent; though the prices charged are high and the Roses do not bloom every day, nor the shrubs have scarlet and blue flowers on at the same and all the time, the ground has been turned over and an interest awakened. This is followed by the addition of a bed of Roses from the local florist, then a plantation of bulbs, and so on, until in a short time a fine collection is gathered together, and the next gentleman becomes interested. This is a trade worth cultivating, as in nine cases out of ten the actual money outlay is not a consideration when satisfaction is given."

In extending his remarks on the subject of flower shows for the interest and education of the public, he spoke as follows:

"Exhibitions made Baroness Rothschild, Magna Charta and Paul Neyron Roses realize the prices they have. Exhibitions made the forcing of Dutch bulbs



assume such proportions. Exhibitions made the sale of Chrysanthemums during the past two years foot up to one million plants. I am pleased to see that the raising of new varieties of plants is receiving more attention. We have reason to congratulate ourselves upon what the society has already accomplished."

In closing, he paid a tribute of respect to the memory of five members of the society who had died since the last convention at Cincinnati: J. HODGES, Globe Village, Massachusetts; WILLIAM BENNETT, Flatbush, N. Y.; H. J. SACKERS-DORFF, Bayside, N. Y.; JAMES Y. MURLAND, New York City, and WILLIAM OBERLY, Richmond, Indiana.

A review of the Florists' trade in this country for the past forty years was made by PETER HENDERSON, in which he stated that "on New Year's Day, in New York, in 1844, \$200 worth of cut flowers were sold. On the 1st of last January, at that place, \$100,000 worth were sold. During the year the sales in New York reached \$3,000,000. The advance of floriculture in the past forty years has been remarkable.

"One of the most wonderful of all advances, however, has been in the fancy designs and arrangement of cut flowers. It was hard work to construct a sample bouquet forty-five years ago. The character of the flowers used for designs have changed. In those times Camellia flowers retailed at one dollar each, and Philadelphia used to send thousands to New York florists on holidays, while Roses went begging at one-tenth that sum. In 1865 Tuberoses were quoted at eight dollars per hundred. Now they are not sold at all. Dame fashion has ruled them out, as she did Camellias.

"Not only has a great advance been made in the structure of greenhouses and their heating, but methods of propagating and growing plants have also been much improved upon. The propagator forty years ago for the few establishments in the country was generally imported from England, and was usually a most important personage—often full of mystery and over-weening conceit, who guarded his knowledge, of which he had often not a very large stock, with a miser's hand. One of these gentlemen was a sort of autocrat in the greenhouse establishment of the late ROBERT BUIST,

when I worked there in 1844. He not only refused to impart any knowledge he possessed on the subject, but actually locked the door of the propagating house against all his fellow employes, and he was sadly put out one day when a sarcastic wag tacked to the door of the propagating house the following transcription of GOLDSMITH's famous couplet:

'And still we gaze, and still the wonder grows,  
How one small head can carry all he knows.'

"We are glad to know that few of that ilk can get a foothold here to-day. The knowledge of propagation has now been so diffused by books and magazines devoted to floriculture, and the rules laid down are so simple, that all the mystery that was thrown around it in those early days has been dispelled. But every now and then—even now—we find some fellow arrogating to himself some 'special secret' in our trade. There are no secrets in horticulture. The laws that govern the germination of a seed, the rooting of a cutting, or the taking of a bud or graft are the same now as they were a thousand years ago, and any one pretending to a 'special' knowledge (unknown to others) in the matter is either an ignoramus or an impostor. Of course, experience or special advantages give a knowledge that the want of such cannot give. But the underlying principles never change, though undoubtedly in the methods of making them available we have made vast strides in this country, particularly in the matter of propagating, in the past twenty years.

"According to the best information, there are over eight hundred florists established in business in this country, who, with their work people, make a considerable showing in the population. The number of Americans engaging in the business increases yearly, for, though England contributes the largest quota to the trade, with Germany and France following closely, Americans are now waking up to the possibilities of the business. Allowing four hundred feet of glass-covered surface to each florist—a low estimate—would give a total of 3,200,000 feet, or six hundred and thirty acres of glass surface. Last year the trade sold 24,000,000 cut Roses and 120,000,000 Carnation flowers.

"If the business increases in the same ratio for the next forty years, rest assured



the now somewhat humble florist will have a place in the community; and that the increase will be even greater, there is good reason to believe. In the early days of floriculture, nearly all the men engaging in the business were old countrymen, who had been private gardeners, often lacking in education and intelligence, and utterly untrained, from the nature of their occupation, in business habits. Now hundreds of young men, with their better opportunities of education, are training direct in the business in all sections of the country, and I think it safe to predict that the leading florists forty years hence will be far better business men than even the most prominent among us now. And it may be that if when the Society of American Florists meets again in this good old city, four decades hence, some other veteran, now a stripling here to-day, will tell, as I have done, of the primitive ways of the craft as practiced 'forty years ago.'

At one of the sessions a practical illustration of making up floral pieces was given by Mr. A. LEMOULT and assistants, of New York City, in connection with a paper read by Mr. LEM., on "Making up Floral Designs in the most effective manner, with suggestions for developing the best taste." The flowers used were mostly Hollyhocks, Chrysanthemums, Dahlias, Asters, Everlastings and Hydrangeas. Of all the work done before the audience the piece most admired was the winged wheel of fortune surmounted by a cornucopia. It was made entire in fifteen minutes. The body of the wheel was of white Immortelles on a ground work of evergreens, the tire of red Roses, and the wings of white Immortelles; the horn contained a beautifully arranged collection of Roses and other flowers. Mr. LEM. had on exhibition quite a number of pieces of elegant design and workmanship. Several interesting and instructive papers were read.

A fine display of Aquatic plants was made by E. D. STURTEVANT, of Bordentown, N. J., among which was a Victoria Regia in bloom, Nelumbium or Egyptian Lotus in bloom, and other plants; a display of French Asters was made by D. ZIRNGEBEL, of Needham, Massachusetts; one hundred and twenty varieties of cut Roses by the DINGEE & CONARD Company; collections of Gladiolus by HAL-

LOCK, SON & THORPE, and by SAMUEL C. MOORE, of Harrisville, Pa., Hydrangea Hortensia grown in soil mixed with iron filings, producing blue flowers, by C. H. CLARK, of West Philadelphia; basket of cut Gardenias by JOHN T. GARDNER, of Johnstown, N. J.; collection of Asters, Petunias, Chrysanthemums and Double Geraniums, by PETER HENDERSON, of Jersey City; collection of Single and Double Petunias, Double Hollyhocks and Verbenas by HENRY A. DREER, of Philadelphia; scarlet Carnations by JOSEPH BENNETT, of Montreal; German Pansies by O. R. KRIENBERG, of Philadelphia. A number of new and valuable greenhouse appliances were also exhibited.

An excursion was made, one afternoon, by the whole "six hundred," to Atlantic City, to see the ocean and enjoy sea bathing.

Another memorable feature of the occasion was a visit, by invitation of GEO. W. CHILDS, proprietor of the *Public Ledger*, to Wootton, his residence, near Bryn Mawr. The guests were conveyed to Bryn Mawr in special trains. There were about seven hundred and fifty in all, including the representatives of the press. At Bryn Mawr vehicles carried the ladies of the party to Wootton, which is a good mile from the station.

The guests made a tour of the extensive grounds, admiring all they saw, and enjoying their day's outing to the very full. There was no ceremonious ushering of the visitors from one point to another, but they separated and wandered at will over the grassy lawns, and examined every hidden nook and corner of the place.

They visited the rustic cottage where the farmer lives, and the circular spring house, whose clear white walls seem to make still cooler the clear water which pours into the receiving basin, which is a rare shell brought from Japan by General GRANT.

From this point the greenhouses were visited, where the visitors received the attention of JOHN W. HUGHES, the head gardener and manager of the grounds, whose skill in his art is shown by their excellent condition. The visitors lingered long at the greenhouses, and critically examined the collection of Orchids, Ferns, Palms and other plants which filled them. Then they climbed the hill



leading toward the mansion and lingered long under the shade of a grand Chestnut tree, in the spreading branches of which a balcony, reached by spiral stairs, commands a fine view of the adjacent country.

It was but a short distance now to the mansion, whose architecture at once attracted attention and commanded admiration, with its simple style and air of solid comfort. From the rays of the sun, which poured hotly down, all now sought the grateful shelter of the grove near by, where they quenched their thirst with draughts from a bright banded bucket with which they drew fresh water from the spring below. In this delightful grove, tables had been placed and a collation had been spread, to which the visitors gave immediate attention.

After sufficient time had elapsed the notes of a cornet called attention, and all gathered and listened to the Keystone Male Quartette, who sang "Fair Flora decks," in excellent style, and were applauded vigorously. The cornetist, J. ROSS CORBIN, again blew a call, and THOMAS MEEHAN, editor of the *Gardeners' Monthly*, mounting a rustic bench, addressed the visitors as follows:

"I have had the honor placed upon me by my friend, Mr. CHILDS, of welcoming you to these grounds. It is his wish that you make yourselves entirely at home, and his hope that when you return you will bear with you many happy memories of this day's pleasure. It was a happy thought for you to hold your second convention in Philadelphia, and is an augury of long continued success, for this city is the birthplace of the first botanic garden, the oldest horticultural society, and the oldest horticultural journal in the country.

"The citizens of this city feel the kindest disposition toward the art of cultivating flowers, and take pleasure in welcoming you to Philadelphia. The proprietor of these grounds deems it no small pleasure to see you here to-day, for the pursuit of gardening and the beautifying of this place has also been a pleasure to him, for the spot which you have to-day visited was once woods and cornfields, yet in six years brains and money have made it the garden that you see it.

"I know of no trade or profession where jealousy prevails so little as in the florists'. And yet I recall a fable of the

first person who arranged flowers. Two or three thousand years ago a handsome young lady, named GLYZERA, made garlands for the Romans. Then came along a young man from Byzantium, no doubt the father of the modern Yankee, who also understood the business of making garlands. His name was LYCHNIS. He was so successful that the lady got jealous. I don't believe this, but so the story goes. She had a lover, to whom she complained, and he promptly removed the competitor by murdering him. To punish this crime the gods turned LYCHNIS into the flower now known as the Carnation, and the wicked GLYZERA was compelled to use the flower in making up her wreaths, and to depend upon the one she had despised.

"I thank you for your attention, and, in behalf of Mr. CHILDS, express the hope that the day will be full of unalloyed pleasure, and that you will bear away to your homes naught but happy memories of the occasion."

JAMES HENDRICK, of Albany, was then introduced, and responded in behalf of the Society of American Florists, thanking Mr. CHILDS for his courteous treatment.

Three cheers were given for Mr. CHILDS, and in response to a general call for a speech, he signified his desire to shake hands with his guests. This was done, and, standing with uncovered head beneath the shade of the trees, he shook hands with his visitors, each one of whom was introduced to him by WILLIAM F. DREER, Chairman of the Reception Committee.

More speeches were now in order, and when ended, the hour was so late that the programme of toasts which had been arranged had to be deferred. On their way to the train the visitors were grouped on the terrace in front of the mansion and were photographed.

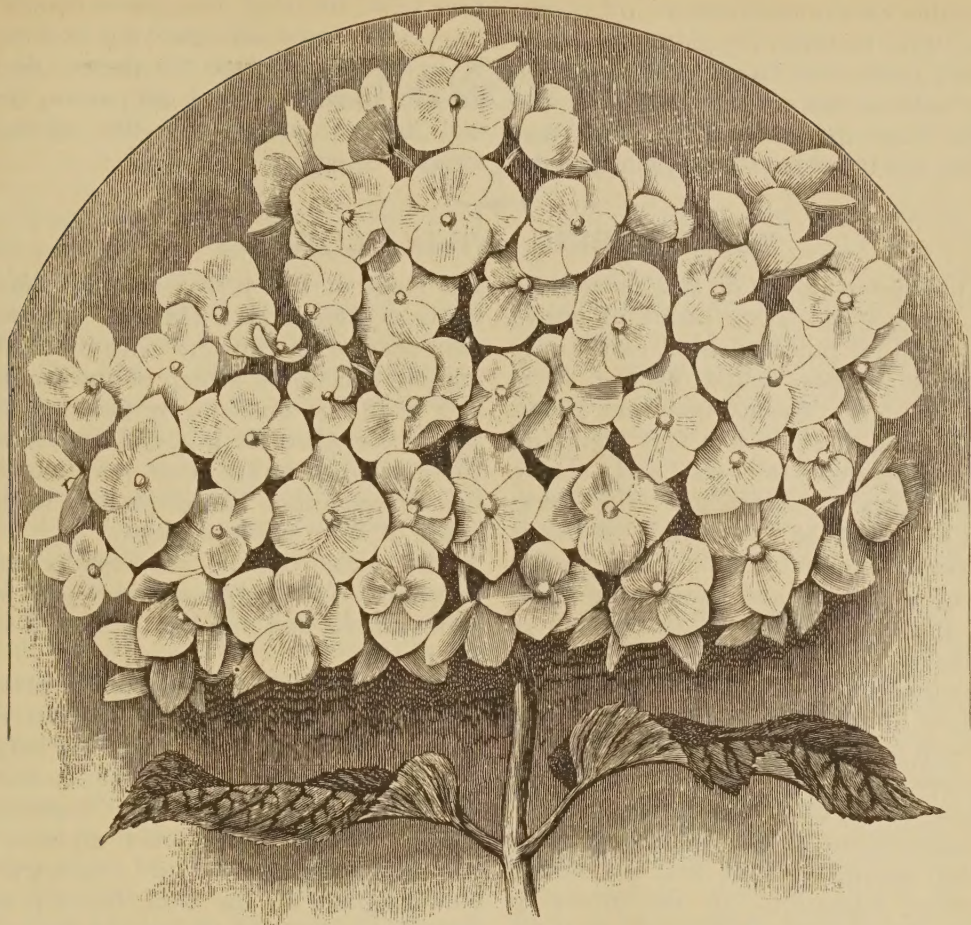
With expressions of good will and hearty cheers for Mr. CHILDS, all made their way to the waiting trains and the city.

At the session, next day, the following persons were elected officers of the Society for the ensuing year:

President, ROBERT CRAIG, of Philadelphia; Vice President, J. C. VAUGHAN, of Chicago; Secretary, EDWIN LONSDALE, of Philadelphia; Treasurer, MYRON A. HUNT, of Chicago.



## HYDRANGEA ROSEA.



The genus *Hydrangea* has greatly increased its representatives in our gardens within a few years past, and these occupy prominent positions. One of the latest to appear is represented by the above engraving; it is considered a distinct species, and is known as *Hydrangea rosea*. Like the other popular members of this genus, it has come to us from Japan. It is not quite hardy in this climate, but will probably winter out wherever the common *H. Hortensia* can stand. The flowers are borne in a large, compact panicle or truss, from a small specimen of which this drawing was made. The color is a clear rosy pink, and quite distinct from any other variety in cultivation. The treatment required by the common *H. Hortensia* is applicable in every respect to this variety.

The plant is easily propagated by the cuttings of young shoots, and those are considered best which are taken off near the base of the plant. Cuttings taken off in winter will make fine plants by the following autumn, which will be ready to

bloom the next season. Strike the cuttings in a propagating house or frame, and when rooted pot them in a soil of loam and sand, and if convenient some leaf-mold added. While growing a warm, moist atmosphere is needed, plenty of light, and a good supply of water—this last can best be supplied in a saucer below the pot during the daytime. The growth will be rapid if the conditions are favorable, and be completed in the spring months, so that during the summer the wood will ripen and harden preparatory to a season of complete rest in the fall and winter. A five-inch pot is large enough for the last potting, and in this the plant will bloom the following season. If desired, the plants can be started into new growth by January, or they can be kept dormant longer or until spring. Plants can be wintered in a light cellar or in a cool, airy place in a greenhouse. Large plants make a fine appearance planted out in the garden singly or in beds. When the blooms fade the branch should be cut away to the side



shoots, and these will become the blooming shoots for the next season. It is best at this time to repot the plants, or rather to shift them into larger pots, using the same soil as before, and removing the crocks from the base of the ball, and picking out the roots so as to induce the

roots to run into the fresh soil. For a time after the shift the plants should be kept close, and a half-spent hot-bed frame is an excellent place for them. As the growth increases, give air more freely and do not fail to give the necessary amount of water.

### SOME SPRING WILD FLOWERS.

In the merry month of May, in this region, there is no more beautiful native shrub than the purple Azalea, or Pinxterbloom, as it was called by the early Dutch settlers. Azalea nudiflora grows usually from three to five feet high, and inhabits shaded thickets and sparse woods. GRAY, in *School and Field Book*, notes its habitat as "swamps," but this is apparently incorrect. We have always seen it on well drained banks from a line near the water's edge to an altitude of several hundred feet. It may grow elsewhere than on the margins of streams or lakes, or in proximity to them, but it has not been our fortune to see it except in such positions. It is found on the banks of most, or all, of the lakes and bays of the western part of this State, but is particularly partial to soils that are not of limestone formation. In the *Flora of North America*, the habitat is given as "swamps, low grounds, or shaded hill-sides; Canada to Florida and Texas." The writer saw large quantities of it in full bloom, this spring, occupying many acres of a new clearing on what is known as South Hill, on the east shore of Canandaigua Lake, at an altitude of six hundred feet; the soil was dry, gravelly, with some clay, and the upper surface mostly leaf-mold, as left by the forest. The shores of Irondequoit Bay—an inlet of Lake Ontario—are dry and sandy, rising up from fifty to one hundred and fifty feet, and on them it grows abundantly.

The color of the flowers is a rosy pink, varying more or less in depth of tint; the colored plate of this month shows an average specimen. There is, however, according to both GRAY and WOOD, a much wider range of color, it varying from pink to white with a buff center, and to a uniform buff or yellow. In this region the variation is but slight, it being merely a slight change of tint. The flowers come at the same time as the leaves, and are borne in umbels at

the ends of the young shoots, often as many as fifteen in a cluster. The nodding pose of the flowers, with the declining and ascending sweep of the stamens and pistils, is particularly pleasing, and the whole effect is graceful and showy. They yield a sweet, rich perfume, and this circumstance has given rise to their name of Wild Honeysuckle.

This plant can be successfully cultivated in a soil composed largely of peat or leaf-mold, and in a lightly shaded situation.

The other subject shown in the plate is a little herbaceous perennial plant that grows from three to five inches in height, and is known commonly under the names of Bluets, Innocence and sometimes Dwarf Pinks. *Houstonia cœrulea* is widely distributed over the country from New England to the Gulf, but it is only to be found in spots especially favorable to it. In this immediate vicinity it is not to be found, but some years since a little patch of it grew in a spot where it was watered by the spray of the Falls of the Genesee. It must have a moist, cool place, and in such conditions will thrive. On the north side of the hill previously mentioned, where the land is springy, and at an average height of five hundred feet above the lake, there is an area of a hundred acres, much of it densely covered with it, and when in bloom it appears, as seen in the valley below at a distance of a mile or two, like newly fallen snow or hoar frost. This large area has spread from a small beginning a few years since, by the seed matured and scattered every summer, and by its creeping root-stocks. The flowers vary slightly in color, from a light blue to a lavender shade with a yellowish white eye. The season of bloom is from the last of April to the middle of June.

This plant can be used to some extent on moist, cool rockeries, and in such situations is very pleasing and satisfactory.



## CORRESPONDENCE.

### "HOW DOTH THE LITTLE BUSY BEE."

A breath of Clover blossoms and Sweet Brier comes across one with the lines of the innocent childish classic, which grows so much more significant since Sir JOHN LUBBOCK has told us the marvelous qualities of his bees. For the keen observer is always finding a thousand delightful things in nature when your ordinary personage is ready to expire with dullness. How many girls and lads have felt moped beyond endurance in the lovely country fields, when Sir JOHN LUBBOCK and Mr. FRANK DARWIN, SPRENGEL and the MÜLLERS of the Continent, have spent seasons absorbed in studying the ways of flowers and the bees. There is a passage full of meaning in the *Greville Memoirs*, where the *blasé* author, diplomatist, brilliant man of rank, society and fortune, after expressing for pages how tired he is of the world and every occupation open to him, writes naively that men who are observers of nature never lose their interest in life, even to old age, but their book is always fresh, and they seem turning its early pages which grow more enchanting as they go on. Whether an English peer or a journeyman baker, like EDWARDS, the Scotch naturalist, takes to studying nature, the result is the same, an endless, ever-growing sweetness of pursuit.

Early as a man of science may be, Sir JOHN, entering his study a few minutes after four in the morning, found a wasp already at work on the honey set out of the window. Bees and wasps suck all the honey from flowers and sweets they can carry, fly back to the hive, store it, and come back directly for another supply. No eight hour law satisfies them. The wasp in question kept at work without a moment's rest until 7:46 in the evening, making a day of sixteen hours. The bee began at 5:45 in the morning and also left off earlier than the wasp. Each visit from the honey to the hive took about six minutes, and he made ten visits an hour, and a hundred in the day. The wasp made sixty visits between 4:13

in the morning and six minutes past twelve at noon, for Sir JOHN timed them all and gives a table exact to the minute of each return to the honey on the sill. Sir wasp must have strayed to visit flowers sometimes, or to have a flight by the way, for his time varies from five to ten and twenty minutes between visits, which were kept up till dusk. This was in autumn. In summer they make overtime and work late in the long English twilights, which are clear till after nine o'clock.

In fine weather bees often visit more than twenty flowers in a minute, and so carefully do they economize the sunny hours that if they find one nectary dry in a flower they do not waste time to examine others on the same plant. Mr. DARWIN watched certain flowers carefully, and found that each one was visited by bees at least thirty times in a day. In large Clover fields, or plains of wild flowers, every one is visited in the course of a day. Mr. DARWIN carefully examined a large number of flowers in such fields, and found that every single one had been visited by bees. There is something very pretty in the thought of this tireless, faithful industry of insects, and of two of the most learned men in Great Britain spending whole summer days in the fields with great faithfulness watching the flower industry.

What use in it, you ask, with true modern disregard of any pursuit which does not return its per cent. of interest within the week. Only to find out more of the uses flowers and insects have for each other, that flowers were made to attract and feed bees that they in turn might carry the pollen which fertilizes and secures the seed of plants. Without this careful searching work of the bees in the Clover fields and orchards our field and fruit trees would die out in time. True, their flowers, like those of most forest trees and grains, might be fertilized by the wind spreading the pollen, but then there would be less need of color, honey and



perfume, all that make flowers delightful. It is curious that the flowers not fertilized by insects, as a rule, have neither color, scent or honey. The fitness, the relation between flowers and insects is one of the loveliest readings of nature. The flowers feed the bees with honey and the bees carry the pollen from flower to flower. The bee does not need the plant more than the plant the bee, and so creation has use and place and distinction for its weakest creatures.

All through creation appears a consideration, a taking thought for the pleasures of slight beings, very moving and comforting to see. Not a wood-tick or red spider or hard working bee but is meant to be happy as well as useful, and while we take the world with a sublime conceit of its being all for us, we find that certain pleasures were designed peculiarly for insignificant beings on whom we do not waste a thought. If the flowers are dyed in every warm, enticing hue, it is not for us alone, but to draw the honey-seeking insects which have a fine eye for color. To test this power in bees Sir JOHN LUBBOCK tried a pretty experiment, placing some honey on a slip of glass laid on blue paper outside his study window, and when a bee had made several journeys and become used to the color, laying an orange slip with honey in its place, and the blue farther away. The bee came back, finding the honey in the same spot, but it preferred the blue color, and pausing a moment darted for the blue paper. No one who has seen a bee under this test will have the slightest doubt of its having a very fine choice of color, the finer shades, azure, deep rose-crimson and rose-pink approving themselves to its taste, as to that of refined human beings. The stripes and dashes which relieve so many flowers, guide the bee to the position of the honey, and are absent in night flowers where they could not show, and would be useless. Night flowers are usually pale, as the evening *Lychnis* is white, while the day *Lychnis* is red. In the first place, the scent of a flower warns the bee of honey in the distance, for its exquisite sense of smell will detect flowering plants miles away. The bright color renders the flower conspicuous. The irregular labiate flowers have a lower projecting petal which serves as an alighting stage for bees, the upper

arch of the flower protects the stamens and pistils and pushes them against the back of the bee so that he is powdered with the pollen or fertilizing dust, which he carries unawares where it is most needed. A hint to the super-excellent people who fuss for fear they are not doing good enough, that the greatest services in the world are often unconsciously performed in the routine of very simple duty.

What bees are to the world is seen by instances of large tracts of orchard and flowering crops being comparatively infertile and dying out till the introduction of bees, which carried the fertilizing powder from flower to flower. Botanists of note have observed that in meadows much visited by bees the plants are more healthy, and bees are good gardeners for securing a large Strawberry crop. In some of the British colonies Red Clover makes no seed, owing to the absence of humble-bees, which only are able to reach the pollen. The honey-bees have many helpers about this great fertilizing task, different flowers being visited by different insects. The superb Snapdragon, with petals of crimson fire, is especially adapted for humble-bees, the pistils and stamens being so arranged that smaller insects would not transfer the pollen, and the Dead Nettle is only accessible to certain humble bees, while the common Chervil is visited by seventy-three species of insects. Ants, moths, aphides and birds, all aid in this important work of preserving plants by seed, though not a few plants have to protect themselves against creeping insects which would carry off the honey without reaching the pollen. The fringed or hairy throats of blossoms forbid ants to pass, and marauders find their feet held in glutinous secretions, or tangled in the woolly surface of leaves and stems. For the honey is only distilled by flowers while their pollen lasts, and dries up as soon as the processes for the formation of seed are over, seldom over a week in any single blossom. The object of the honey is simply to attract the bees to their office of distributing pollen for cross-fertilization.

The work of storing honey for man is a side issue, though nature's asides are not to be despised. Honey, as food, contains highly concentrated nourishment, strengthening and preservative to the



lungs, soothing to the nerves, slightly astringent and antiseptic. If not acceptable to the digestion it is because that is out of order. "It is not good to eat much honey," says the book of wisdom, because it is concentrated and a little goes a good way for nourishment.

Our traditional respect for the bee increases the more we know of his ways as housekeeper, workman sixteen hours a day, purveyor for mankind, warden of the Clover fields, or as regards his personal susceptibilities. Not only has he an exquisite eye for color, but the daintiest sense of smell, and the furious dislike bees often show to particular persons is traceable to diseased breath or rank perspiration.

Persons who go about bees should use the nicest care in bathing, wearing clean body clothing and keeping a sweet breath. The bee is a lover of purity in every shape of food and air. He must have pure air in the hive or he cannot live, and in summer the hum heard

within the hive is that of swarms fanning vigorously with their wings to keep up a circulation of air and cool the interior. Else, by the mere animal heat of so many small beings, the temperature would be hot enough to kill the entire brood. When it is 45° outside it will be 90° within the hive when the swarm is at home, which renders it possible to keep bees over winter with only protection enough to keep them from freezing. If you would know how doth the little busy bee in his curious, dainty ways, instead of being frightened at the next one that comes about, keep quiet and observe him. Set a few drops of honey or thick sugar and water on the window sill to tempt him, or keep honey-bearing plants there, and study him through the glass. Bring your clumsy senses to the sharpened perceptions which detect the tastes and manner of bees and flowers, till you find the hidden leaves of nature open to you their marvel and delight.

SUSAN POWER.

### THE CINERARIA—PRIZE ESSAY.

A few years ago the Cineraria was one of our most popular winter blooming plants, but since Roses, Carnations and other winter bloomers have taken its place its cultivation has been sadly neglected. But within the past year or two it has begun to occupy its proper place among choice winter blooming plants, and magnificent specimens are frequently seen at the horticultural exhibitions.

The Cineraria is generally considered to be a difficult plant to grow, but such is not the case, for if its requirements are understood no plant can be more easily grown. The mistakes generally consist in growing the plants in too warm a temperature instead of in a cool one, and in overpotting the plants while small.

The seeds can be sown at almost any season of the year, but for the amateur cultivator the best time is from the middle of April until the middle of June. Indeed, it is best to make two sowings, one about the end of April and the other about the tenth of June, but if only one sowing can be made it should be done about the middle of May, for the seed will vegetate much better if sown before hot weather sets in. The seed should be sown in well drained pots or pans filled

with light, rich soil; sow very thinly and cover slightly, a mere dusting with a little of the compost will be sufficient, and press it down rather firmly with the bottom of a pot. If the seed is sown in April the pans should be placed in a warm, moist situation, close to the glass, and as soon as the young plants are large enough to handle they should be transplanted into other pans similarly prepared, and placed an inch and a half apart. These plants should be kept close and moist until growth commences, and by this time the weather will be warm enough to permit them to be removed to a cold-frame, and treated as advised for the later sowing.

The later sowing should be made about the middle of May, and the seed-pans or pots removed to the cold-frame where they should be kept close and moist until the young plants are well up. As soon as they are strong enough to handle they should be transferred to other seed-pans, and placed about an inch and a half apart each way. It is best to keep the young plants close and moist until growth commences, when a little air should be given. The plants can be grown in the seed-pans until they



commence to touch each other, and then they must be carefully taken up and potted off into three-inch pots. When first potted water thoroughly and replace in the cold-frame as close together as pos-



CINERARIA.

sible, but on no account should the plants be permitted to touch each other.

Keep the young plants growing and in a healthy condition, and as soon as the pots become moderately filled with roots they should be shifted into pots about two sizes larger, and treated precisely as advised for the first potting.

This treatment should be continued throughout the summer and until the approach of cold weather, when they should be brought inside. If specimens are wanted the repotting should be continued until the plants are in pots from eight to ten inches in diameter.

When brought inside, the plants should be placed by themselves in the coolest part of the greenhouse, but keep them far enough apart to prevent the leaves in one pot from touching those in the next, and as soon as the flower-stalks make their appearance give the plants liquid manure water at least twice a week.

The cold-frame in which the plants are to be grown during the summer season should be placed on a bed of coal ashes in a partially shaded situation. The sash should also be given a light coat of white paint, in order to keep the sun's rays from the plants, for although the Cineraria likes to be grown in a light situation, yet it soon suffers if it is permitted to be exposed to the sun during the summer months, especially if it should hap-

pen to become a little dry at the roots. In this frame and on the bed of ashes the plants should be placed as closely together as possible, without the leaves of one plant being permitted to touch those of another from the time they are taken from the seed-pans until their period of blooming is past.

In potting, porous or soft-baked pots should always be used, and see to it that they are well drained, as this is a very important point. In draining, place a large piece of broken pot over the hole, then several smaller and gradually fill up with smaller until the pot is one-third filled; over this place a layer of moss, to prevent the soil from falling through.

The soil most suitable for the Cineraria is one composed of two-thirds turfy loam, one-third well decayed cow manure, with a fair sprinkling of bone-dust; mix thoroughly and use the compost rough, pressing it down firmly around the plants.

The Cineraria is very subject to the attacks of the aphid or green fly and the red spider. The latter can be prevented by growing the plants in a moist, cool atmosphere. The former is more troublesome, and requires constant watching, but a few leaves or stems of Tobacco scattered among the plants in the cold-frame, and renewed occasionally will keep them in subjection. In the greenhouse they can be destroyed by a slight fumigation of Tobacco. Water should be given thoroughly whenever necessary, and when the flower-stalks make their appearance give liquid manure water at least twice a week. Never permit the plants to suffer for water at any time, and keep them in a moist and cool atmosphere at all times, excepting in the winter, when the foliage should be kept rather dry in order to guard against damp, as this would soon destroy the foliage and thus materially injure the appearance of the plants.

A packet or two of seeds of the mixed varieties will produce a quantity of plants, and give a varied and beautiful display, but my experience with the double varieties has been anything but satisfactory.

It appears to be scarcely necessary for me to add that the plants are worthless and should be thrown away after the flowering season is past.

CHAS. E. PARNELL, *Queens, N. Y.*



# Lily in the Sheaf



O, weary, and worn, and bent, and gray,  
Was Dame Durand ; she had gleaned all day  
Behind the reapers—despite her care  
Her sheaf held little of value there.  
Yet, far from being distraight or sad,  
Her lips were wreathed in a smile so glad,  
Her sister gleaners all gathered 'round,  
And questioned : " Good Dame, what hast  
thou found,  
That thou, who hast toiled the live-long day,  
Should look, at even, so blithe and gay?"

Down from her head she lowered her sheaf ;  
Her brown hand shook like an autumn leaf ;  
" See my good fortune, kind friends, I pray,  
A Lily I've found in my sheaf, to-day !  
Flame-like it burned in the wheat-field's breast,  
But here, in my sheaf, it findeth rest."

" A worthless weed," with a sneer, one cries,  
" Not worth the room that it occupies."  
" Not so," said the Dame, " the weary hours  
Were cheered by the breath and bloom of  
flowers,  
And lighter all day my load has been,  
For the fair Lily that lay within ;  
And how 'twill brighten and cheer my  
home,  
When I to that longed for place have come !  
In the Wheat, food for our hunger lies,  
Yet on the Lily we'll feast our eyes."

Ah, we who glean in life's harvest fields,  
Do we garner all its richness yields?  
Our physical wants are all our care,  
What we shall eat, and what we shall wear,  
Forgetting too oft, as seasons roll,  
The wants of heart or the needs of soul.  
" Consider the Lilies," JESUS saith,  
They teach the lesson of living faith ;  
Who fears to follow where His hand leads,  
Our Savior, who knoweth all our needs?

He has given to each his work to do,  
But He has given us pleasures, too ;  
The while we gather the sheaves of care,  
The Lilies of love and joy bloom there.  
So, let us garner them day by day,  
The blessings blossoming by the way,  
Neglecting not each day so brief,  
To bind a Lily within the sheaf.

DART FAIRTHORNE.



## TREES, PLANTS AND SCENERY IN CALIFORNIA.

A long residence and some travel here, in contact with nature, has created a desire to communicate for the benefit or amusement of others some of the results of observation, thinking I may aid some one to a clearer understanding as to the requirements of certain varieties and sorts of plants, as I have learned them from nature.

The natural history of any plant which does not include a description of native locality, and give the exact conditions under which it arrives at the greatest degree of perfection in development, is of uncertain value to the culturist. While many, in fact, the great majority of plants ordinarily cultivated, will adapt themselves to various local conditions, and flourish tolerably well under nearly a uniform method of treatment, such as amateurs can easily acquire and bestow, yet there are others of value that fail for the want of such special care as only a knowledge of natural requirements and habits can give. The most successful gardener is he who supplies all necessary requirements and makes conditions best adapted to the nature of his plants. That sure success depends in special cases upon exact knowledge and care is certain. Several of the most desirable trees and plants peculiar to this coast have long attracted the attention of Eastern gardeners, but so far as I have learned their culture has not generally been attended with the desired success. Whether this is owing to unavoidable and unfavorable conditions is a question worthy of consideration.

The scenery of a country depends for its vigor and expression largely upon its peculiar kinds and forms of vegetable life. The charms of nature are varied by endless individualities and combinations dependent upon conditions, general and local. Think how vastly different the same contour of hill, valley and mountain would appear under the snows of Arctic regions, the robust growth of the temperate zone, or the rank mass of tropical luxuriance. There is something awfully grand and impressive about the sterility of the vast dreary desert valleys and craggy mountains of Nevada and Arizona in wonderful contrast with the richly clad and inviting hills and valleys

of Western Oregon and California. And nature is rich in variety, even within a limited area, especially where vegetation is most abundant. There is a sameness about any sterile region, oppressive and wearying. Even the sparse vegetation of a desert country is often leafless, thorny and forbidding in aspect, in harmony with nakedness, solitude and desolation.

The traveler with an eye and a heart alive to the beauties of nature, finds constant surprises and exhilarations in the contrasts and varieties of scenery in a habitable country, in its ever changing features as enlivened by the kinds and quantities and varieties of vegetation. The vegetation of the cool, moist coast, valley and mountain regions is quite different in many particulars from that of the hotter, dryer and broader valleys and mountains of the interior counties of California. The coast hills are covered with a close-knit sward of grasses and are natural pastures. The Sierras show only here and there bunches of perennial grasses, and the natural pasturage depends largely upon annual plants. The trees and shrubs are mostly different, though a number are indigenous to both coast and interior. The lower hills are differently clothed from the higher ridges, the wind exposed from the sheltered, the sunny from the shady sides. This especially under our sunny skies near our mountain tops, two to three thousand feet elevated.

At the writer's home, upon the summit of the Santa Cruz range, the northern slopes are covered with forest growths, while the south exposure is open and grassy, interspersed with scattering groups of bright colored wild flowers of varied hues, which court the sun. Here, gnarled and spreading Oaks, in open groves or singly, love the sun and brave the storms. Their roots strike deep down for moisture and support. Here various fine-leaved shrubs grow massed on rocky steepes. The Wild Rose, Blackberry and Poison Oak (*Rhus*,) are stunted shrubs in stools. The ridges often are bare of all but grass and flowering annuals, while small, rocky ravines are filled with mingled growths of trees and shrubs, mostly dwarfed evergreens, with



Buckeye, Elder and vines. Upon the northern slope the forest climbs to the very summits and crowns them with the hardy Firs and Live Oaks and Madronas, which here spread out their wings as if for light. Below, in denser growth, the Redwoods and Chestnut Oaks seek moister spots, and fill the deep ravines up level with the ridge of either side. Here the same Oak that spreads in sunshine on the south, grows straight of trunk to find the light above, its limbs draped deep in moss, and brown with Lichens leathery, that like the shade.

The Poison Oak is here a vine. The Blackberry in the half shade and rich soil, bears fruit on viney stalks. The rank Wild Rose blossoms in the nooks between sun and shade. Here and there dense Hazel thickets grow, and Ceanothus denser yet. The Thimble-berry has its open nooks. The Snow-berry and Snowy Spiræa keep company. The Yerba-beuna likes the shade and creeps beneath the leaves and Ferns. Rich feathery Ferns and curious Lichens hide in rocky dells. The tiny streamlets that trickle forth from crystal springs is made the home of many a tender plant. Yet there are many open knolls and spaces even here where single trees and plants of grand symmetrical proportions in sheltered freedom thrive. The sunshine and the shade on northern and on southern slopes, the shelter and the open ground have each its own peculiar world of life and mode of interest and beauty.

Standing upon our mountain top, surrounded by the varied hills and trees and plants in nature's own sumptuous array, within the sphere of my vision a panorama of scenery, distant and magnified, is opened. To the north, twenty to sixty miles away, lies the Bay of San Francisco. Back of bay and city is Mount Tamalpias. Across the bay, to the right, is the valley slope of Alameda County, with cities and villages and farms. Beyond is Mount Diablo, rounded like a rugged dome. To the east lies the valley of Santa Clara, or San Jose, with these cities in full view, sixteen miles away, with several other towns and many farms chequered with various growing fields. The valley lies, as it were, at our feet in all its wondrous beauty. The mountain chain beyond, with Mount Hamilton, where the Lick Observatory is building,

for a center lies in fullest view with their thousand spurs and ravines, plainly marked by dark and light, made deeper by the growths that paint and fill them. On hillside and in valley the fields of Wheat and Barley, the orchards and vineyards, where culture shows its hand, has each its own peculiar shade of varying green or brown, as the season goes. The tree-lined avenues and water courses are plainly traced. South of east, some twenty miles, beyond a neighboring settlement upon our summit of a most intelligent and enterprising community, engaged in the culture of orchards and vineyards, stands the conscious monarch of our range, Loma Prieta, black to our view from base to summit, with a dense growth of brush massed upon its sides. South, lying under the sun, like a lake of silver, sleeps the Bay of Monterey. Extending from its eastern shore, and stretching into distance between mountain ranges, is Salinas Valley, with towns and farms. Nestled between hills and bay repose the flower embowered towns of Watsonville, Soquel and Santa Cruz, while eighty miles away somnambule Monterey is soothed by the waves that wash the farther shore. The blue peaks of the Gabilan mountains rise beyond faint in hazy mist from ocean's breath. The ocean, to the right from open mouth of bay, extends in broad stretch from earth to sky. Then, still to right, in the southwest, is a reach of mountain ridge which hides the sea, Ben Lomand Mount, clad in deep forest growths. And lying all between our feet is a wealth of Redwood forest, known as the Big Basin. Miles and miles of densest growth of noble trees, filled with ridges and streams and settlements, and mills which convert the timber to lumber for civilization. The ocean, the grand old Pacific, again opens to the west and northwest, with boundless depth of view. Such scenery can be neither described nor painted, for under the varying lights and shades, changes of season, phases of atmosphere, and fogs below and clouds above, the colors, conditions, time of day, it is never the same, though always picturesque, enchanting and sublime. In its grander and in its nearer charms, the mind is lost in contemplation, admiration, and silent wonder.

S. HARRIS HERRING.



## BOUQUET MAKING.

Give two persons the same kinds of flowers, in like quantities, and tell them to arrange them in bouquets for the hand, or in vases. One will go to work and without any apparent effort, put the flowers together in a natural and graceful way. There will be no crowding, no stiffness in the arrangement. The other will work hard to produce something pleasing, but the result will be anything but that. The flowers will look ill at ease, prim, unnatural, and the impression will be the same as that given you by seeing a family of country folk on Sunday, arrayed in their "best clothes." Why this difference in the work of the two persons, you ask. The answer is a simple one. One has that "knack" for the arrangement of such things, "knack" being simply another name for good taste, and the other has not. One must have a good eye for colors, an instinctive knowledge of what is correct in form, and be an observer of nature's way of doing things, to be successful in arranging flowers. Certain colors should never be used together. Those whose eyes are not good judges of harmony in this respect always fail to make a good bouquet. They will have a blue Aster and a red Rose side by side, and get quite as much satisfaction from the arrangement as they would from an artistic grouping of colors, while to a person keenly sensitive to harmony in color the effect would be absolutely painful.

All kinds of flowers, too, should not be used together. Try to group Geraniums and Roses together and note the effect; it is entirely unsatisfactory. Put each flower by itself and you see no reason for dissatisfaction. Why is it that they produce such a disagreeable effect together, and do not when separated? Simply because they are not in harmony with each other. Instead of blending their respective beauties in one harmonious effect, they exaggerate their differences, and you get the impression of incompatibility. This incompatibility, be it of temper, color, or quality, should afford ample ground for immediate divorce.

As a general thing, most flowers look best when by themselves. A vase of Roses is generally most effective when nothing but Roses is used. I know of

but one flower blooming in Rose time which combines well with the Rose, and that is the Flowering Sumach. This has large, pointed clusters of pure white, feathery flowers, which not only harmonize well with Roses, but add to their effect, because of the contrast in color and delicacy of appearance. The effect produced in my mind when these two flowers are used together is always the same as that which results from seeing beautiful silk garments with lace. The Sumach's feathery clusters, in their airy, delicate grace, are the lace on the Rose's silken garments.

Sweet Peas should never be used with any other flower, if you would produce the best effect with them. They are best by themselves. Cut them with long stems, preferably whole branches of them; do not try to arrange them while in your hands, but drop the ends into a rather tall, flaring vase, and see how the dainty flowers will arrange themselves. If dropped in loosely, they will droop this way and that, exactly as they have been in the habit of growing on their trellis, and the result is one to delight the eye of any one who loves beauty.

A great mistake is made in thinking one must have a large quantity of flowers in order to produce good results. A few flowers lightly put together, with the proper quantity of foliage, will give much better satisfaction than a large number crowded into a small space. In order to bring out the individual beauty and color of a flower, it must have room to display itself in. If it does not have, you get a confused impression of colors which may as well result from patch-work as from flowers. One Rose with a few leaves, and perhaps a bud, in a slender vase, will glorify a table, while a score of Roses in a small dish, so crowded as to hide all foliage and smother all individuality of flower, will not be admired by any body, because there is nothing striking or effective in the arrangement. One woman will make a dress out of rich material and attract not the least admiration when she appears in it, while another woman, with a cheaper material, will fashion a dress that challenges every one's attention. It is the same in bouquet making. It is not so much the



material you use as it is the taste with which you use it, that produces satisfactory results.

Flowers should always be selected with especial reference to what use they serve, or, perhaps I ought to say, the dish chosen should be of a character suited to the flowers they are to contain. Tall flowers, like the *Gladiolus*, should have tall vases given them. Short stemmed flowers appear to the best advantage in shallow dishes. The less decoration a vase has the better the flowers appear that you place in it. It is the flower, and not the vase, that is to be displayed, and therefore you do not want any rivalry between the two. For most flowers a vase of plain dead-white is best, and next to this I would prefer one of clear glass. Lilies, Golden-rod and Lilacs are very effective in wide-mouthed jars.

In mixed bouquets a vivid yellow flower is of great value in toning up the collection. It may be small and not particularly attractive in itself; all you want of it is its spot of color. It brightens all the others, like a touch of sunshine.

The *Calliopsis* is an excellent flower for vases. Its long stalks on which the velvety flowers cluster, like richly col-

ored butterflies, are admirably adapted to tasteful arrangement in vases.

For large jars, our wild *Clematis* is an excellent flower to use, cutting it in great branches, which can be allowed to droop to suit themselves, after you have put them in the vessel. It can never be ungraceful. This flower is one that harmonizes with all other flowers, and ought to be more extensively grown for cutting. The Lilac is a charming flower for use in the house, but should always be used in large vessels, and cut with a liberal allowance of branches. The flower clusters are not adapted to tasteful and satisfactory work when cut by themselves.

Blue flowers seldom harmonize well with any but white ones and those of a peculiar shade of yellow.

For large jars, standing in a corner or some conspicuous place, it is hard to get any thing finer than the Perennial Larkspur, cutting the stalks low, and giving them the center of the vase, with branches of double lemon-yellow Hollyhocks about them. The two colors contrast strongly, yet harmonize well. A vase full of Hollyhocks in yellow, scarlet and white is sure of admirers, provided the vase is large and the stalks are cut long.

EBEN E. REXFORD.

## THE FIRST FROST.

The yellow leaves drift everywhere,  
And underneath the grass  
Is soft and cool;  
A breath of frosty air  
Has turned to glass  
The surface of the glistening pool;  
Unlooked for and uncalled it came, and lo,  
The emerald hides beneath the brown,  
Or wears a gold or mottled crown;  
And crimson dyes and scarlet woof  
Come drifting o'er my cottage roof,  
And lightly fall, with colors mixed,  
Betwixt  
A warp, still shaded deep with green.

The sunbeams lie across the hill;  
Their slanting rays and bars  
Of amber light  
Have touched yon sparkling rill,  
Where nothing mars  
The beauty of its ripples bright,  
Safe shielded in the cleft; ungathered Corn,  
On upright stalks, like gleaming blades  
Of sentries stands. How bright the glades  
And slopes appear, though dropping leaves;  
And nature's loom a carpet weaves  
By throwing woof, with colors mixed,  
Betwixt,  
And through, a well drawn warp of green.

The Sumachs in bright uniform,  
And scarlet Maples, dressed  
In holiday  
Attire for sun and storm,  
Bring out their best,  
And brighten lanes for those who stray  
In forest groves and seek glad autumn's gold.  
The purple on the trellis-row,  
The orchard, where the Apples grow,  
The groves where drop the Chestnuts brown,  
The Poplar with her yellow crown,  
Are not so fair as threads here mixed  
Betwixt  
The unfaded warp of summer's green.

By far too beautiful to stay,  
We cannot hold them long;  
The gold and green  
Will, ere long, hide away;  
The wood-bird's song  
Be heard no more; the autumn scene  
Take deeper dye of brown, then cover up  
In snowy blankets, fold on fold;  
Each leaflet, pressed against the mold,  
Shall hold and warm some shriveled sheath  
That wraps a lovely germ beneath,  
While Frost King scatters crystals mixed  
Betwixt,  
And o'er, our carpet, gold and green.

MRS. M. J. SMITH.



## FOREIGN NOTES.

### THE VALUE OF FRUIT AS FOOD.

Few people are aware of the value of fruit as an article of food. Many persons look on fruit as a luxury, whilst some shudder at the idea of it, and conjure up internal tortures at the name. Children, on the contrary, will eat fruit at any time, and undergo much discomfort to get it. It is elderly people, or those past their first youth, who cannot eat fruit and enjoy it. Cooked foods, highly seasoned meats, and alcoholic liquors have spoiled their taste, and in many instances a ripe Strawberry or Plum would inconvenience them sadly. But the person who values health, and who knows a little of the value of fruit, will make it a point to eat it daily, and even on occasions to make a meal almost entirely of it. Another cause why ripe and wholesome fruits are given a bad name is because they are eaten at the wrong end of a meal. After many courses of heavy foods and strong drinks, a few harmless Strawberries are indulged in, and then when these rich foods and stimulating drinks upset the stomach the blame is put on the innocent Strawberry. The real place for fruit is at the beginning of a feast, and not at the end. A better plan still is to make a meal of bread and ripe fruit. The best meals to make thus are breakfast, lunch, or early tea. The bread should be brown and dry, and the fruit ripe and raw. Dry brown bread cleans the tongue and brings out the flavor of the fruit. Butter on the bread would give its own flavor, or even the salt in the butter would destroy the pure taste of the fruit.

Again, the fruit should be raw if possible, as many delicious odors and delicate flavors are lost in the cooking. This weather, then, a meal of brown bread and ripe Strawberries, Cherries, Gooseberries, Raspberries, &c., should be looked upon as a wholesome corrective to high living. Those who want to be cool this warm weather, and who wish to retain their mental clearness all day, cannot do better than lunch off fruit and bread, leaving heavier and solider food until evening. Children may be given plenty of fruit,

and as long as it is ripe no harm will result; on the contrary, it clears the complexion and skin, and acts as a laxative and a cooler. When children have a half-holiday, and they are in the way at home, you should buy them some fruit and send them to the nearest park, common, or open space, where they can romp and play, and, instead of sickly and often poisonous sweets, they may regale themselves with the fruit you gave them. A picnic party should never depart without a basket of fruit, and that fruit should start the meal. It is astonishing how exhilarating and enlivening a meal of fruit is, and instead of feeling dull after it, as you do after ordinary food, you feel stimulated and brightened up. It is not wise to eat raw fruit too late at night, as this does not digest so easily or lie so lightly as food we are constantly taking. Fruit is best in the morning. I have many patients who take an Orange, Apple, or other fresh fruit the first thing in the morning, the same as many people take their early cup of tea. This early fruit eating is to be commended, it clears the tongue, stimulates gently, and with many it is the cause of regular laxation.

Many people—a good number of whom are doctors—are of opinion that autumnal diarrhœa is due to fruit. This is an idea not borne out by facts. I inquired into the subject, and found that in every case the diarrhœa was due to meat or fish, but never to fruit alone. I have experimented on myself, and got other friends to test the result of free fruit eating on themselves, but in no case as yet have I got a report of diarrhœa from it. I lived one day last summer on Strawberries, managing to eat seven pounds during the day, but I had no diarrhœa. Other times I have lived on Plums and milk, and have eaten freely of Cherries and other fruits in their seasons, but never had looseness of the bowels in consequence. The true explanation of autumnal diarrhœa lies in the fact that in hot weather flesh putrefies very quickly, during putrefaction alkaloids called ptomaines are formed; these are emetic and



purgative, and give rise to distressing symptoms. These alkaloids are found in meat at all times, but more especially during hot weather.

Fruit has the composition of a perfect food, containing all the substances required by the body. Here is the composition of Strawberries:

	per cent.
Water, . . . . .	87
Sugar, . . . . .	4
Free Acid, . . . . .	1 $\frac{3}{4}$
Nitrogen, . . . . .	$\frac{3}{4}$
Insoluble matter ( $\frac{1}{2}$ per cent. of which is ash)	7
	100

From this table we can see that fruit is a perfect food, as it contains everything needed, including water. We may also gather that it is a food for the indolent, and not for hard work. In a hot clime it would be all that is necessary; but in a temperate clime grain is needed as well. There is one thing worthy of notice, and that is the amount of free acid in fruit. This is anti-scorbutic, and also very useful for dissolving out any surplus of lime or other salts that may be in the system. Were fruits used daily by all there would be less gout, rheumatism, gall stones, stone in the bladder, and calcareous degeneration than there is now. In connection with the curative power of fruit, we must mention the "Grape cure." This is practiced in France and Germany in the autumn, and is a cure for many diseases due to high feeding. The patient is given a pound of Grapes to eat the first day. This amount is added to until the person can eat five or six pounds a day. The other food is gradually lessened, and the diet at last consists entirely of Grapes. It cures obesity and many other complaints, and starts the person off on a new lease of life. In this country we may partly carry out this cure, using Strawberries, Gooseberries, Cherries and Plums in place of Grapes. Fruit is thus seen to be a necessity in a rational diet, and of immense value in dietetic medicine. T. R. ALLINSON, L. R. C. P., in the *Echo*.

#### BEGONIAS FROM SEED.

Tuberous Begonias, both single and double, are readily raised from seed, and I may add that they are of nearly all shades of color. We have now amongst them clear whites, yellows, pinks and crimsons. Last season I procured a large

packet of double Begonia seed about this date. I sowed it at once in light sandy soil, and as soon as the young plants were large enough I potted them off into very small pots; they were set on the top shelf of a warm house, and before winter set in they had made nice little bulbs. They were then dried off and packed in ashes in a large box, where they remained until they began to show signs of growing in spring. Then they were repotted into four-inch pots, and they are now coming into bloom, quite half of them being doubles and the other half good singles of various colors, and the freedom with which they flower makes them most welcome. A rich light soil suits them perfectly, but they are not difficult to deal with in this respect; even if planted out in the flower garden in any fairly good flower bed soil they grow with surprising vigor. But few flowers show more marked improvement in every way than these Begonias have done during these past few years. A good strain of seedlings even may be relied on to surpass what were considered to be at one time the very best named sorts.

J. G. H., in *The Garden*.

#### REPOTTING ROSES.

The general practice is to repot every year, taking away as much of the old soil as possible, and replacing it with good loam, with an admixture of rotten dung. The most favorable time for so doing is in the middle of November, as the operation of repotting and pruning can then be simultaneously performed. After potting, a moderate watering should be given, and from that time until growth recommences, but little water will be needed. It is not, however, absolutely needful to repot annually; some of the finest pot Roses ever exhibited at the London shows had been four years in the same pots, and we have grown excellent Roses in the same way. Instead of repotting, remove as much of the surface soil as possible, and replace it with good loam, with a good admixture of bone-dust; make it as hard as possible. When the plants come into full growth they should get a sprinkling of some artificial manure, and this should be renewed when the buds are well formed. When Roses are grown in this way they require more water than when shifted, as



the pots are full of roots. The soil should never become quite dry from the time the first leaves are fully formed.

J. C., in *Gardening Illustrated*.

#### SOLOMON'S SEAL IN-DOORS.

As pot plants for in-door decoration in late winter and early spring nothing is more useful than this graceful wood-

#### CARNATIONS AND PICOTEEES.

Carnations and Picotees are now fashionable plants in London; and what is more it is found that they are superior to most other plants in ability to thrive in town gardens where smoke and dust prevail. The *Gardeners' Chronicle*, in explanation of this fact, says: "We believe one reason to be that, speaking



SOLOMON'S SEAL AS A ROOM-PLANT.

plant. Its singular nobility, refinement and delicacy, both of form and coloring, make it highly suitable as a room ornament. Flowered under glass, its leaves are more tender in coloring, and the stems rather slighter than in the natural out-door state. Six or eight crowns potted in eight-inch pots in September and kept in a cold-frame may be brought on in convenient batches in a moderate greenhouse temperature, so as to flower from Christmas onward. The engraving shows a potful so treated in an old embossed Venetian copper bucket. *The Garden.*

broadly, the leaves are alike in structure on both surfaces, whence it results that, unlike most leaves, they have a double breathing apparatus and a double digestive arrangement. Moreover the leaves are narrow, stand more or less erect, and afford relatively little lodgment for impurities, which are soon washed off by rain."

APPLES IN ENGLAND.—The Apple crop of Great Britain, according to the best estimates, is but little more than half of the average yield. American fruit of good quality will be in demand.



# PLEASANT GOSSIP.

## NORTH WINDOWS FOR PLANTS.

What plants can be successfully grown in north and west windows? I shall have to use such windows or dispense with plants in winter, which I dislike very much to do. I have had east and south windows heretofore, and have had remarkable success with Geraniums, Fuchsias, Rex Begonias, Lady Washingtons, Ivies, Heliotropes, Carnations, Hydrangeas, Oleanders, Callas, Bouvardias, Farfugiums and other plants of easy culture.

What is the best treatment of a Madame Pollock Geranium?

MRS. J. H. L.

Most plants will do well in west windows, if the conditions are right for them, but north windows are not favorable for the growth of ordinary house plants. Ferns, and many kinds of plants cultivated for their foliage, will, however, succeed in north windows. Many kinds of flowering plants that have been raised elsewhere, and have been brought to the blooming stage, will then flower freely standing in windows with a north aspect. Among such plants may be mentioned Hyacinth, Tulip, Rose, Fuchsia, Pelargonium, Camellia, Calla, Chinese Primrose, Cineraria, Azalea, Orange, &c.

Madame Pollock Geranium is best when treated as a greenhouse plant the year round. It needs good soil and the best of care.

## THE SWEET BRIER.

Will you be so kind as to publish a good description of the Sweet Brier Rose? I want to say to my husband, "I told you so." The fact is, he has never seen a Sweet Brier, and he does not credit my assertion that the foliage is delightfully fragrant. He says it is only a childish memory. To be sure, I have never seen any since we left our Wisconsin home, when I was fourteen years old, but we had two large bushes there in front of our sitting-room window, and on dewy mornings and evenings the air was delicious with the fragrance. In your February number the colored plate, *Rosa rugosa*, reminded me somewhat of Sweet Brier, although ours were all pink blossoms and smaller than those in that plate.

MRS. F. A. R., *Willis, Montana Ter.*

We doubt if anything we might say would describe more vividly than has here been done, the merits of the Sweet Brier. The plant is quite hardy and would undoubtedly thrive in the Western Territories. It can usually be supplied by dealers in Roses.

## CARDAMON.

I wish to know what the Cardamon seed of commerce is, and also what cultivation the plant requires.

MRS. E. W., *Wirt, Iowa.*

Cardamon seeds are the produce of *Amomum melegueta*. The plant is a native of the western coast of Africa. The fruit of *Amomum cardamomum* is also used for the same purpose as the other, and is known as the Round Cardamon, and, besides, the fruit of several other species of *Amomum* are used similarly as a spice. *Amomum melegueta* is a plant tenacious of life, and of the easiest culture, provided only that it has a good light soil and the ordinary temperature of a greenhouse or plant window.

## HIBISCUS.

Will you give the winter treatment of Hibiscus?

F. C. T., *Brooklyn, N. Y.*

Kept as warm greenhouse plants the different kinds of Chinese Hibiscus will thrive and bloom during winter. There is nothing very peculiar in their treatment. A soil composed of two parts loam, two parts leaf-mold and one of sand is suitable; a warm, moist atmosphere agrees with them.

## PLANTAIN.

Will you please inform me how to get rid of Plantain? We are greatly troubled with it about our place.

MRS. E. D. C., *Norwood, N. J.*

We know of no way to get rid of Plantain but to keep it cut out so as to prevent its growth. This is some work on a place where it is growing thickly, as it often does. But it can be subdued in this manner.

## FEVERFEW LITTLE GEM.

Please inform me if the Feverfew Little Gem is hardy enough to leave out through the winter?

L. G., *Maxville, Kansas.*

We do not know of any test that has been made of the hardiness of this plant; but, as the double-flowered Feverfew and the Golden-leaved variety are both hardy, it is probable that Little Gem is also.



**AMARYLLIS ATAMASCO.**

I have had a plant called Cuban Lily for about four years, perhaps five. I bought it from the late PETER BOWMAN, a friend of mine, and a florist of some note in Preston, Waterloo County, Ontario. The first and only specimen I had ever seen was in his garden. I think he was one of your subscribers. It generally blooms with me in August. Mine is rather inclined to be a rose color. The one I have has given but one flower each year until this, when it has rewarded me with two. The second, I think, comes from a younger bulb in the same pot, and from the appearance of the pot might possibly have another one. As soon as I think that the plant has done blooming I shall divide it and repot it. Is mine a Cuban Lily, or is it not? W. H. M.

The specimen received was *Amaryllis Atamasco*; hence it appears that this plant, in some localities, goes under the name of Cuban Lily.

**CALADIUM BULBS.**

Will you please tell me how to keep the fancy-leaved *Caladium* bulbs through the winter. I left mine in the pots last winter, and kept them in a warm, dry place, but most of them rotted.

J. R. H.

The probability is that the tubers were not kept quite dry or in sufficient heat. At the close of the season dry off the plants and allow the bulbs to ripen, and then remove them from the soil and store them in a box of dry powdered charcoal, and keep them in a room where the temperature will be from 65° to 70°. In this way they can be kept sound for a year and more.

**EUCHARIS AMAZONICA.**

Will you give me some directions for doing the best an amateur can, who has the misfortune to be presented with a dozen pots of *Eucharis Amazonica*, a real white elephant to me. One is blooming, spite of cold season, and all look well.

L. D. P.

In the first place, we should be very generous with these plants toward any of our friends who might show a disposition to help care for them, and especially to any who might have the convenience of a greenhouse. They need a warm, moist air, such as is difficult to maintain outside of a plant house; plenty of heat and moisture are the essentials to success with the *Eucharis*.

**PROPAGATING CLEMATIS.**

Please inform me how to propagate *Clematis*, whether by cuttings or seed.

MRS. M. G. R.

Such kinds of *Clematis* as *C. Virginiana*, *C. graveolens*, *C. crispa*, *C. coccinea*, *C. Flammula* and *C. vitalba*, and all true species can be increased by

seeds. This is the readiest and most rapid process when seed is to be had. They can also be raised from layers. The hybrid, large-flowered varieties are increased by layers and by grafting on small plants of common sorts. Many of these large-flowered varieties produce seed freely, but the seed will not reproduce exactly the variety, though it may give something desirable.

The specimen flower received with this inquiry was *Calystegia pubescens*.

**LIME WATER FOR EARTH WORMS.**

In the use of lime water to destroy earth worms in the soil of flower-pots, some persons fear injury to the plants by using it too strong, and therefore neglect to employ it altogether. It should be understood that lime water will not injure plants. And by lime water is meant water containing all the lime it will hold in solution. This is a definite quantity, and cannot be increased, no matter how large an amount of lime in excess is used for a certain quantity of water. The water will hold so much and no more. After slacking lime in water it is allowed to settle, and then the clear liquid is poured off; this is lime water. The soil of a plant can be saturated with it by pouring it on, or by immersing the pot in it for a time. This operation will destroy earth worms, or compel them to escape.

**FUCHSIA PHENOMENAL.**

The *Fuchsia Phenomenal* which I purchased last May, I am more than satisfied with. It has had thirty full blown flowers, and has now seventy buds, large and small. It is greatly admired by every one who sees it. I pinched it back when about a foot high, and it has branched out nicely.

MRS. F. B., *New Berlin, N. Y.*

**RASPBERRY PLANTING.**

Five or six years is the average term of duration of Raspberry plantations; if retained longer, the fruit is small and but little of it. As it takes a year or two for the plants to reach their best bearing condition, it is well to make a new plantation every third year, and thus have two plants, one coming into full bearing as the other is going out. Plants can be set in fall or spring.



**EDGING FOR FLOWER BEDS.**

I fancy Mrs. A. G. W. was quite discouraged at the advice about edging for flower beds when reading in the August MAGAZINE, "Take away the boards, use the lumber for some other purpose," &c. Evidently she wants something to keep grass roots out of her mounds, away from the plant roots, and I do not wonder at her make-shifts in using boards. The subject is quite perplexing, and anything between the grass roots and the plants that will prevent the former from penetrating into the mound will save much annoyance and labor in keeping the mounds clean. In these parts of Illinois we have several resources at our command, either of which will, with ordinary care and at a reasonable expense, serve to accomplish the object desired. First, we have edging of artificial stone molded into sections, which, when put together, make a tight and durable edge for circular mounds or fancy shaped walks, with all sorts of curves and angles; this, of course, is expensive. Next, those with limited means, like myself, and perhaps abundance of material about the premises, use common building brick, hard burnt the best, set endwise close up to the cut edge of the lawn, and close together, about four inches above the surface of the grass. Old rejected, or second-hand, brick is generally used for this purpose, cleaned before set, the part in sight may be painted; also, to make the seams tight against the penetration of grass roots, they may be set in cement or mortar; this, if effectual, binds the bricks together, so there will be no trouble at time of spading or refilling the mounds. The mound should be kept full to the top of the bricks, and rounding.

Another material is drain tile, which, for beauty as well as usefulness and cheapness, where it can be obtained without paying freight, is, in my opinion, at the head of the list; it costs no more than new brick. The tile is a trifle longer than brick, which is all the better, as they can be set deeper, or for higher mounds left higher above ground.

Fancy the effect of such edges on your mounds, especially as each tile serves as a perfect flower pot for the reception of edging plants. Care should be taken in the selection of the tile as well as of brick, as there are scaly kinds that

crumble to pieces by freezing; the good, porous kind of both will last a life-time.

C. W. Y., *Amboy, Ill.*

**THE FIRE-FLOWER.**

More than a century and a half ago, when our Eastern border was but thinly settled and civilization was trying to gain a firm foothold, the dusky, dark-eyed Spaniard entered America by its Western way, and marked his progress along the Pacific slope by mission churches, monasteries and shrines, whose ruins yet remain amid decaying grandeur. From these first outposts of the missionaries, the Fathers of the Franciscan order penetrated far inland, taking with them messages of good will to the savage inhabitants. In one of these journeys to the interior a brother saw on the mountain top the red flowers which sprinkled the snowy field with drops like blood. In awe-struck adoration he fell on his knees and named it "Sangre de Christo," the mount of the blood of Christ. This worker perished in the wilderness, but the legend tells us that the crucifix which fell from his nerveless hand was transformed into a wondrous marvel among the clouds, for far beyond mortal reach, or flight of bird, towers a great cross of snow against the mountain side, known as the "Mount of the Holy Cross." Centuries ago the glory of Sinai faded, long ago the priceless drops of the Savior's blood fell from the upraised cross on Calvary, yet on the almost limitless stretches of the Sierras the *Sarcodes sanguinea*, or Snow Plant, like red drops, crimson the white snow-waves, and in splendor of diamonds glitter the eternal snows in form of the blessed cross, symbol of the divine and universal love.

M. F. R., *Louisville, Ky.*

**DWARF JUNE BERRY.**

The Dwarf June Berry grows very easily, endures any amount of heat or cold, wet or dry to which our locality is subject. It bears freely and the fruit is fine flavored, and is a little larger than the wild June Berry, dark purplish-red with a fine bloom. There is but one difficulty in its culture, viz.: the birds are so fond of the seeds that they will pick them out before the fruit is ripe, and we rarely find a handful of nice ripe berries.

M. A. H., *Chatham, Ohio.*





SINGLE AND DOUBLE DAHLIAS.

### DAHLIAS.

These flowers, for autumn blooming, are receiving increased attention, and the single-flowered varieties are gaining rapidly in popularity as they become better known. They are easily cultivated, increase rapidly, and a stock once procured can be kept from year to year as long as desired. By starting the roots early in pots in the house they can be brought into flower before the middle of summer, if that is desired. But it is a great point in their favor that they bloom late, when many kinds of flowers have passed away. The tall growing, the dwarf and the handsome single varieties make a great stock to select from, and one has ample opportunity in them to indulge his fancy.

### OUR ROSERY.

Although our New England climate is an exceptionally mean climate for most kinds of flowers, yet there are a few sorts that it does well by. Fuchsias in the open ground have flowers in profusion, measuring five inches in circumference. Roses are highly favored, mine did magnificently in every respect; but the quantities produced are perfectly appalling. I tried to count those on a bush set out in the spring of 1885, but gave up after several ineffectual attempts. The extraordinary size of them is surprising. Paul Neyron thinks nothing of twenty-four inches around his waist, and the "Jacks" are immense.

I have often heard it said that Moss

Roses could not be had in this "blarsted country," and that one "must go to England to see Moss Roses." England be hanged. I defy the whole world and a part of England to produce finer Moss Roses than I grow every year in my garden, or more of them. Baskets full of them were gathered every day and distributed among those who "had always understood that Moss Roses could not be grown here." *KATE, Over There.*

### FINGERS OUT OF THE SUGAR POT.

There are some old time plants that can't bear to be meddled with, such as Pæonies, Yuccas, &c.; if they are, they fail not to resent it in "a language that's mute, and a silence that's felt." All they ask in order to give perfect satisfaction is to be let severely alone. My Pæonies I never do any thing to but look at and admire, as every one does in dazed astonishment at their size, the beautiful colors, and the delicate texture of the petals, fine as that of the Rose. Then, if you want handsome flowers, let them alone, for it "puts them terribly about," as the Scotch say, to be meddled with.

*ALECK.*

### CRIMSON CLUSTER STRAWBERRY.

This new variety, it appears, is to have run in the trade. It was originated by E. W. DURAND. It is claimed to be extraordinarily productive; berries large, of a rich crimson color; commences to ripen early and continues until late. As yet it has not been widely tested.



## RASPBERRIES.

In a communication to the *Ohio Farmer*, W. W. FARNSWORTH, of Lucas, Ohio, notes his experience the present season with Raspberries :

Tyler and Souhegan were the first Blackcaps to ripen, and gave a good yield of medium-sized fruit. Ohio has done well, and while I do not believe it will be as profitable as the Gregg, where the latter succeeds well, still it seems to adapt itself to a greater variety of soils, and thrives and yields paying crops where the Gregg will not. It ripens between the Tyler and the Gregg, and is a hardy, healthy grower.

For home use I doubt if anything can be found which will equal the Seneca, and in fact I see no good reason why it should not be valuable for a near market if it succeeds as well in other places as it does here, where the bush is hardy and productive and a good grower. The fruit is large, jet black, and far superior in quality to any Blackcap with which I am acquainted. The Gregg has done better than usual on my grounds this year and yielded a good crop.

There is an objection to the Gregg, however, in the fact that it ripens its fruit in a very short time, and that right in the height of the season when prices are usually the lowest. In looking over different patches of Greggs I find nearly all of them have been allowed to grow too tall before pinching back, and consequently many of the bushes become top heavy and are easily blown over.

Among the reds there seems to be but little difference in the earliness of the Hansell and Turner, with the Marlboro only a few days behind. I am well pleased with the Hansell, although from the reports of other growers it does not seem to be doing so well in all localities as it is here. With me the bushes make a good hardy, healthy growth, about midway between Brandywine and Cuthbert in size. The fruit begins to ripen with the earliest and holds out to the very latest, lasting this year as long as the Cuthbert. It is of good size, bright in color, and firm, and is one of my most profitable varieties. The Turner does not give me as good results, as the small patch I have of them is planted on clay ground alongside of a deep ditch. The most of my soil is sandy loam. Some of my

neighbors have them growing on light sandy soil and they succeed finely, although too soft to ship well to any distance. The quality is excellent.

I am well pleased with the behavior of the Marlboro so far. The bush is a strong, healthy grower and the fruit is large, firm, and of a beautiful bright color, and lasts from early in the season till the latest. Cuthbert, all things considered, is my most profitable variety. It has never been injured to any extent by the winter, and has never failed to produce a large crop of large, handsome berries, rather firm and of excellent quality. In fact, the quality is the best of any Raspberry I grow, with perhaps the exception of the Turner.

I find that to produce the best results, canes should be cut back severely, and have come to the conclusion to do no summer pruning with any of my red varieties, but thin out and cut back severely in late winter and early spring. If the growing canes of the reds are pinched back the side branches, which soon form, will soon cover up and choke down the ripening fruit to its injury and will make it almost impossible to pick it clean.

Superb crumbles too much, so does Crimson Beauty. I shall plant no more of either, nor of Welsh, New Rochelle or Reliance. The latter sort is successful in some localities, but with me it is unproductive, does not ripen evenly, and crumbles badly. Brandywine is hardy and productive, of medium size, firm, bright fruit, but the quality is poor. I find Beebe's Golden perfectly hardy, a good grower and very productive, but the fruit is rather small and does not sell well in the market.

I was somewhat surprised, last spring, to find many canes of Shaffer killed by the winter, when the previous winter, which was much more severe, had not injured them in the least. The crop of this variety, this year, was the largest I have ever seen. The bushes were literally loaded to the ground, so that I was obliged to set stakes along the rows and run a wire on each side to keep the fruit out of the dirt. The fruit sells readily in a home market where it is known, and is generally considered the best variety grown for canning, but it is a decidedly poor shipper and its unattractive appearance is decidedly against it in a market

where its good qualities are not known. I was informed by a fruit grower at Barnesville that it was valuable for evaporating and gave a good yield of dried fruit per quart. I was agreeably surprised to hear this, as I had supposed that the yield of dried product would be light.

### FLORAL GOSSIP.

If there is a more gorgeous, and at the same time really beautiful, flower than the new Iris from Japan, I would like to know what it is. I have been wonderfully surprised at the show of color my few plants have given the present summer. Bright blue, delicate lavender, rich purple, mauve and yellow, and white, with exquisite combinations of all of them, the list seems endless, looking at it from the professional florist's standpoint. What we have now is only a promise of what we may expect. I am greatly mistaken if there is not a "rage" among amateur florists for this flower, which will quite equal the present one for the Chrysanthemum. It deserves a great popularity, for it is an exquisitely fine flower, there is nothing coarse about it, and the Chrysanthemum certainly does lack that refinement which we who love it would have been glad to see in it. I know of but few flowers of a more delicate texture than the Iris. It has all the airy transparency of frost-work in its petals. It is an easily managed plant, I think, from my experience with it, and if it proves to be as hardy as represented, we can congratulate ourselves on having secured a great acquisition to our list of first-class plants for the border. For use in vases we have no better flower. It lacks but one desirable quality and that is fragrance. But we cannot expect one flower to combine all the good qualities of the garden in itself.

The single Dahlias are out in full splendor. I am still strong in the faith that they are more desirable for garden decoration than the old double ones. They have a grace of habit and blossom that the doubles never had. Each flower seems to be floating in the air when seen from a little distance, and as for color-effect, what more can one want in the way of brilliancy? I have them in the richest shades of yellow, scarlet, maroon and purple, and the white ones serve to intensify these colors till the bed seems

to be covered with a flock of gorgeous butterflies. The best three varieties are, in my opinion, Amaranth, violet-purple; Corsage, an intensely bright scarlet, and White Queen, pure white with large yellow disc. But all are so fine that it is hard to decide between them. I have made daily use of them in tall vases, and few flowers are calculated to give greater satisfaction.

A most charming old plant is *Plumbago capensis*. It is a great bloomer and very easy of culture, and the fact that it has flowers of a most delicate lavender blue, a very unusual color among plants, will recommend it to the amateur who is in search of something desirable. It should be cut back often to promote a free growth of new branches, as the flowers are always borne on new growth. In shape, the flowers resemble those of the Phlox, and are borne on a short spike, loosely clustered along it. It is very profuse, and blooms most of the season. It is an excellent winter flower.

The new *Coleus*, Golden Bedder, is what it was claimed to be, the best yellow variety for bedding purposes. It has retained its color well all through the intensely hot season without scorching, and that is something but few light varieties will do. I have found it more satisfactory than the Golden Feather *Pyrethrum*, for uses where a clear yellow was desired.

The intense heat which we have had here at the West has hurried everything along, and though autumn has not yet come, nearly all kinds of fall flowers are in bloom. The fence corners are bright with Golden-rod. Asters are beginning to show their faces along the pastures and in the edges of the swamps. The *Ampelopsis* is already crimson, and many kinds of trees are beginning to show bright colors among the green of their summer suits. \*

### THE CHARLESTON EARTHQUAKE.

The great earthquake on the first of September, which was felt over a wide area of country, and was so disastrous at Charleston, S. C., must have caused there a great destruction of horticultural property, though the facts in regard to it are not yet fully known. Besides the commercial horticulturist there, many of the residents have fine greenhouses and conservatories which must have suffered.



## GARDEN NOTES.

The warm, sultry days of opening September, ushered by fog and shower, have started the garden into new growth, and plants which seemed at a stand still for weeks of drouth, surprise one with a new luxuriance. To be in time for frost, which gave a false alarm the 20th of August, as well as in July this year, I began taking up the Heliotrope—always a delicate operation. The finest plants, lifted with anxious care, shaded and watered for weeks, rebelliously curled blackened leaves and died by inches. My neighbor, who has such good luck with her plants, lifted Heliotrope successfully by digging around the roots with a trowel three days before, and pouring a pail of water in the trench daily. This soaked the soil round the roots, so that the plant could be taken up with a large ball of earth, not disturbing a fiber and lodged in the large pots. I took mine up after rain and plunged the pots under water for several days, and the largest forbore to droop a leaf. The pots were set in cool shade in tubs of water which came some inches above the rims, and the plants showered freely any time I passed them. Mignonette, which is so sensitive about transplanting, was potted, for I don't feel satisfied without its fragrance in the sitting-room, even in mid-winter, and plunged in water the same way without the slightest check.

All sorts of cuttings are set in thumb-pots of earth, set closely as they will stand in shallow pans of water, and root in three days to a week this fine forcing weather. The reason of all this is simply that the plants or cuttings are freely supplied with all the water needed to sustain their circulation in the critical change of transplanting. Plants need very much more water than they get in the growing season. I was struck by a line from some authority to the effect that plants could use three times as much water as they ever receive in the rainiest weather, and think this knowledge will be the key to greater success in plant growing than we have yet seen. Give a healthy plant in summer sun all the water at its roots it can take up, and you will be astonished at its growth. You can almost see the cells of tissue shoot before the eye, like ice crystals. Water on the leaves in full sunshine only cooks the tissue, but a light,

rich soil, well saturated by irrigation, works wonders.

Henceforth there is no use for the cess-pool after the frost is out of the ground. Every precious drop of water or slops goes on the lawn, or grape border, or about the shrubs or young trees. The thrifty Maples on the lot adjoining ours are a testimony to the virtues of good watering. Set eight years, or less, ago, their strong, far-reaching branches and wide, graceful heads already throw the sidewalk into sufficient shade, and they are, at least, three times as well grown as other shade trees of the same age along the street. Every Monday, the season through, the suds from the washing was poured by pailfuls at the root of each tree, and eight years' libations have resulted in such clean, large, luxuriant growth as delights the soul of a forester. It is a lesson in the cultivation of shade trees which we neighbors diligently follow. All our pretty Silver Striped Maples have a basin hollowed at the roots holding pailfuls of water, and when the great necessities of a parish picnic, or an engine parade have called away every jacket about the place, my own hands have "toted" the suds by the dozen pailfuls to those petted trees. While the rest rushed crazy off to some neighborhood fuss, in good clothes, it was far preferable to be toiling at one with sunshine, stars and dews, all forces of the planet in the nurture of the green, grateful mystery of trees that will make the country-side beautiful generations hence.

The flower border has been an ever new surprise since the spring planting with fresh favorites. The Van Sion Daffodil, planted in March and flowering in May, a Rose of gold, was followed by the garden Anemones, also spring planted, a wonder of superb, translucent color. Dark feathery foliage broke the mould, and a pale bud rose on an upright stem, to be found one Sunday evening a rose-red cup of jeweled light, glowing in the low sunset rays as purely lovely a piece of color as if dropped out of Paradise. And the delight of this Anemone is that it reveals new beauty daily in its week or ten days of bloom. The cup enlarges, deepens and vivifies its matchless hues, while at last the coronet of stamens rises from the center, ornamental as in no other flower I can think of, remains a

day or two in perfection, and is grandly done. No haggard, lingering fading disfigures this peerless blossom—peerless for its brilliancy and transparency, which is that of stained glass. One must passionately adore the Creative Spirit which has such exquisite sense of beauty as to fashion for us so delightful a flower as this, excelling its kind, lovely as all summer Anemones are, as ruby excels red lacquer.

The summer Carnations gave good account of themselves after a little Bowker fertilizer was stirred in the earth about their roots. They were fine, well grown clumps, but I was not prepared for the boy's report that he had counted the buds on one cluster and found one hundred and eighty. They bloomed as if they never would have done, and I came near having half enough Carnations for once in my life, and still, September roth, are coming out with fresh gleams of crimson. If a third of the buds had been cut off at first, there would probably be profuse bloom till frost. Still, three months of blossom from a plant ought to satisfy any gardener. The white Canterbury Bells were a beautiful sight in June, when their spires of moon-like bloom had not a flaw, but there has not been a day since when their stems had not flowers, and they are coming out anew since the fall rains. As for the Rose and ruby Snapdragon, honey-scented, that is warranted to bloom and last forever, the richer as it grows older. The same for the Stocks, purple, crimson and white. These are standard garden flowers with all the good qualities, hardy, perpetual bloomers, of rich, varied colors and great sweetness—things no garden ought to be without.

A peculiar favorite of mine is the quiet flower known as the Dame's Violet, of Shakespearean days, the White Sweet Rocket, rather a common looking thing, hardly more than a white Radish blossom or any other Crucifer, till the cool rains brought it out, large and fine, with its clear serious grace and a shy delicious odor, like a herbaceous Jasmine in appearance and scent. It is not a flower to take popularly, but has a reserved charm which endears it, besides many poetic associations, and a spray of its white, fragrant blossoms, with a Fern leaf or two, is a posy of delicate sugges-

tions. Hardly less interesting was the white Fraxinella, a graceful blossom, like a head of starry white Honeysuckle, lasting long in bloom, and filling the air for over a yard about it with its oily, lemon-scented vapor. Flowers that have individuality, like this, add greatly to the charm of a garden.

It was a pleasure to watch the spare, clean, trim German who comes with choice fruit in summer and baskets of Laurel in winter, go from flower to flower, eagerly descrying their quality. He has a nice garden of his own off by the Purgatory road, as local tradition names it, and old country favorites flowering in it, but I never saw such out-pouring of interest as he made over the pale yellow Carnations bursting their sheaths. He went down on the sod with uplifted hands, his fine, pale face alight with emotion. "Sixty-two years of old am I this last June, but never in my life haf I seen one yellow Carnation! Vhat vill I tell my vife, and she will not believe it till I show her! Sixty-two years and never haf one yellow Carnation!" Happy soul to have kept the feeling for flowers so bright and warm. Happy souls that learn to dote on flowers and garden things, and so keep up a panacea for a thousand cankering ills. We owe a great debt of gratitude to our gardens. Their innocent, absorbing interests have soothed perpetual plagues of cares, have eased breaking spirits, and kept over-wrought brains from turning, and sick hearts from rushing to the poisonous medicines of the world for their fever.

Now the borders are aglow with Dahlias, from the exquisite Pompon, maroon blotched with rose color, to the great scarlet, and blood-red, and freckled purple. The gorgeous selection Mr. Vick sends out enchants me far more than if made by myself. I steal a neighbor away from morning work and babies, now and again, to walk among this court of beauty.

For next season the pleasure will be the Lily walk, now laid out, where a broad, twenty-five foot path, with grape trellis at the sides, will have a four foot border each side taken out of its width for Lilies that love shade, with great edgings, where one can pace screened from sight and sun. Such pretty plans make holiday of middle life.

S. P.



**LILIUM AURATUM.**

Last spring, among other things, I had from you some *Lilium auratum* bulbs. They were large and fine, and I planted them in seven-inch pots, about April 1st, as my lawn was being regraded. The pots were drained with bits of charcoal, and the soil used came from the street. I placed them in a room without heat and with little light, keeping the earth moist. By the middle of May the bulbs each showed a green shoot, and without disturbing the roots I then planted them where they were to remain, on the west side of the house, where they had the sun from one to five o'clock in the afternoon. The first bulb bloomed about the fifteenth of August, the Lilies measuring eleven inches across, the petals being seven and three-quarter inches long. Each flower lasted ten days, the weather being cool, and they attracted much attention, besides being greatly to the taste of the humming birds. The last bulb blossomed September 7th, four Lilies coming out at the same time. They were very fine, though not so large as the previous blooms, and a storm of wind and rain soiled their faces with their pollen when they were five days old, until they looked as if they had been eating taffy.

CARRIE CROCKER.

**DRY WEATHER PLANTS.**

After passing through a long continued drouth of nearly three months, I noted among the plants usually offered by the florist that the Vincas and Periwinkle,

*Nierembergia gracilis* and *Lantanas* came through the best, flowering continually. Where one has water, in this climate, a score of desirable plants may be successfully cultivated, and will richly repay for the extra attention; but where it is impracticable to water often I know of nothing better than the above that are in flower continually. Among the annuals, the *Petunias* and *Portulacas* seem to flourish and flower even in the driest weather. We are looking for fall rains soon, and as our *Roses* and plants have been at nearly a stand still for some time, I look for a vigorous, not to say rank, fall growth. This will leave them in a soft, sappy condition at the approach of winter, and will necessitate careful management of those removed from the border to the conservatory. On several days I noted the mercury at 108°, on many at 102° to 104°. Is it any wonder that people who start out enthusiastically and plant liberally in the spring, should relax in their attention to their flowers?

LEVANT COLE, *St. Joseph, Mo.*

**FLOWERS BY MAIL.**

In your most charming MAGAZINE I notice an inquiry, on page 250, in regard to "Flowers by mail," by Mrs. M. E. K., and the answer to the same. It is all good, but one thing. The flowers should be cut the night before, and the stems placed in water; they will soak themselves full and keep twice as long in consequence. Flowers packed that way will go long distances in good order.

E. O.



# OUR YOUNG PEOPLE.

## VACATION DAYS.

IN TWO CHAPTERS.—CHAPTER II.

When Mabel had Rodney to herself once more, she resumed :

"Yes, that Gregg declared to the other boys that he had been thinking the matter over seriously, and had decided that Miss Warren was too sensible and well bred to hold herself so *cheap*—that's just the way to express it, Rodney—so cheap as to be caught by their silly tricks, and that he, for one, was heartily ashamed of himself. And then, 'So am I,' 'And I, too,' went up from the other boys, all except Kendall, he was soured beyond recovery. Then Gregg still further relieved his mind by an appeal to the boys :

"'Now, I propose,' said he, 'that we suspend our tom-foolery, and try hard study for a while, and see if we can't develop enough sense to finally win the respect not only of our superiors here, but even that of such girls as Miss Warren, whether we care to or not. Of course, she only thinks of us now as a lot of simpletons suffering from a bad attack of 'girl on the brain.' Bah! I'm disgusted. What say you to tackling our books for a change, and see if it don't pay?'

"'Agreed,' responded the boys, 'and one round for Gregg!' and they cheered him with hearty good will, because they knew he was right and admired his manly candor.'

"Estelle was naturally interested in that clique from the first report of their doings, and she made her brother keep her posted, and so finally learned that there were no more earnest students in the college than those boys had become. So you see, Rodney, that cousin Pearl's firmness was really the means of doing good.

"And, besides, you know it is just the thing for such chaps to have the conceit taken out of them once in a while, and to learn that there are plenty of girls who are not going to waste study hours on them, nor violate social rules to win their society. I believe the Principal, Madame French, is right when she

tells us that American girls do not think enough of themselves—do not——."

"G-o-o-dy g-r-racious!"

"Now, Rodney, hush!—do not hold themselves exclusive enough to win the respect of such young men as are worth the winning. And in her monthly lectures to us, Madame does condemn fearfully the making of acquaintances in street cars and across counters, and declares that girls who respond to newspaper proposals for correspondence are fit subjects for a lunatic asylum. The way she goes on sometimes is enough to make one's hair stand on end. It frightens me."

"Well, Madame is entirely correct," Rodney declared, with some warmth, "in warning girls against making random acquaintances. And, of course, she's right, too, in saying what everybody knows—that girls ought to hold themselves and their social favors so high that to win either the boys would have to cultivate correct morals and deportment. As long as girls are simpletons there will be plenty of the same in our own ranks."

Then that teasing contrariness which some brothers unfortunately delight in, seized Rodney again, and he went on :

"But, after all, I am still incredulous as to cousin Pearl's single-heartedness. So you may sleep on that. Good night."

When once installed as a guest in her uncle's family, Pearl Warren unconsciously made short work of winning their hearts completely. Just wherein lay her peculiar charm, Mabel said she could no more explain than she could locate the perfume of a flower. But Mrs. Fay assured her the secret could be given in a very few words—genuine goodness of heart associated with refinement of speech and manner. And on this Mabel pondered.

From the first, Pearl had begged off from society, saying, there would be time enough for social demands when she



ceased to be a school girl. So she made acquaintance, instead, with the farm animals, from the sheep, calves and colts to the pigs and poultry. So genuine seemed her interest that her uncle remarked, one day,

"I believe, Pearl, you really like these humble, common creatures."

"I do, indeed," she answered, "and would you believe, uncle Fay, that the only living thing I own is a large, white cat." [Rodney and Pearl exchanged glances.] "He is a beautiful creature and so intelligent that I make a great pet of him. When but a small kit he jumped from the arms of a little girl sitting at an open car window, and a colored boy caught him and gave him to me. So, you see, he has a history."

"Yes," thought Rodney, "he has more of a history than she thinks we know of." As the days sped by he had more than once tormented himself with a half-earnest notion that he ought to win from her some personal confidence, and after a long talk in the orchard on the evening before she was to leave, he stopped Mabel on her way to join her cousin for the night, with the query:

"Has Pearl asked you yet if I've got a girl?"

"N-no! have you?"

"Never mind now. Perhaps she'll ask you to-night, and then, if you've got one bit of 'gumption,' you can learn her secret, for I'll wager she has one."

"You dreadful boy."

"I know it, but you keep cool."

All this was more to tease Mabel than anything else, though Rodney had tried to make himself think that he half-believed—he didn't know what.

"I am not at all sleepy," said Pearl that night when the light was out, "and must tell you how much I have enjoyed every hour of my visit here, and how dearly I love you all. Rodney, I think, is going to make a noble man. I wish I had such a brother."

"I am glad you like him," responded Mabel, and then, with her heart beating like a trip-hammer, and a sense of guilt tugging at her conscience, she added, "Since you've spoken of him as you have, I'll mention that he's hinted of a possible 'girl' that he may have."

"As you've mentioned it first, I'll admit that he proposed to exchange confidences

with me. He was so persistent to get my secret that I was half tempted to tell it."

"A secret, after all," thought Mabel, and her scruples vanished. Though incredulous of anything serious, she felt excited at the bare possibility of what might be, but controlled her voice so as to inquire composedly if she were not to know something about it.

"O, yes," said Pearl, since my little 'affair' is now so matured, I do not mind telling you all about it." [Mabel thought she must scream.] "And to begin, he is very smart, for one thing, has a wonderful gift of language, and is very entertaining. He is called handsome, and though not as tall as uncle Fay, has a good figure. Then, besides, he has no vices, and I see no harm in cultivating him. The college girls rave about him, little suspecting that long ago he asked me to marry him, and still protests that he shall marry no one else."

"And do you really care much for him?"

"I tell you frankly, Mabel, that I love him dearly. His name is Fred. Spencer."

"Excuse me, Pearl, but does Auntie know all this?"

"She doesn't suspect anything serious between us."

"Don't you think you ought to tell her?"

"There's no hurry about it," answered Pearl, and then her voice grew sleepy and there was silence. Mabel's feelings were in such a tumult that sleep was banished for hours. Recalling her Auntie Fay's perfect security in possessing, as she thought, "Pearl's entire confidence," she felt really indignant on her behalf.

The next morning, when the good-byes were said, Pearl threw her arms about Mabel's neck, and whispered, "Tell no one a word of last night's talk, except Rodney, and love and trust me the same as ever, please." But Rodney was the very one she did not wish should know it. He, however, soon observed that she avoided him, even at meal time he could not catch her eye, and knew she had some knowledge she did not care to reveal, and, to do him justice, he was sorry. But he was resolved to learn what it was, and until he did all other interests in life dwindled into minor importance. But upon hearing the revelation—so much be-



yond anything he could have suspected—his true nature asserted itself, and instead of saying, "I told you so," he expressed only regrets that even in this one particular they had been deceived in their cousin, while her mother's ignorance of the affair he thought a still more serious matter."

"I shall write to her," he said, "and tell her that if she does not immediately inform Auntie Fay, I shall feel obliged to do it myself, or have papa do it. And I shall take occasion to mention that though there are several girls whom I think are just 'tip-top,' I've made no special selection yet, having already noticed that boys of nineteen are likely to change their minds as they get older."

Of all this Mabel quite approved, and derived much comfort from the reflection that Rodney was, after all, more correct in his real feelings and ideas than he sometimes let it appear.

However, the sensation caused by Pearl's revelation was soon supplemented by another, as an extract from her answer to Rodney's letter will reveal:

"Although I told Mabel the exact truth," she wrote, "I have done as you advised; and first showing my mother your letter, I explained to her the whole

matter. As I expected, she blamed me rather severely, and wonders I have not become wiser by past experience.

"That I am not as sorry as I doubtless ought to be in this instance, is because there is such superlative enjoyment for me in a certain class of temptations that I cannot resist them when an opportunity to indulge is forced upon me, as in your case. You sometimes seemed persistent in thinking that girls generally are very silly, and so when you generously proposed to exchange confidences with me, I decided that you certainly deserved the benefit of the fullest confession from me that truth would admit.

"Please say to Mabel that though I told her nothing untruthful, I neglected to mention that Freddie Spencer is only five years old, and therefore not *nearly* as tall as Uncle Fay. He is a great pet with both of us, and often says that when he 'grows up big' he is going to marry me so I can live with him and his mamma. For Mabel's undeserved share of worry about me, I sincerely beg pardon. As to your own share of disturbed feelings, you must acknowledge, cousin mine, you brought it upon yourself, and will, therefore judge me lightly.

MARIA BARRETT BUTLER.

## THE PLATYPUS, OR DUCK-BILL OF AUSTRALIA.

One of the most curious of all animals is the Platypus, or Duck-bill, a little creature not over twenty or twenty-three inches long, including the head and tail, whose home is in the fresh water lakes and rivers of Australia. It has attracted more attention than almost any other animal because of its strange appearance and peculiar habits, and has been regarded as forming a connecting link between quadrupeds and birds, both on account of form and anatomical structure, and there is nothing of a similar kind existing anywhere else in the world.

The name, Duck-bill, has been given it because its bill or beak, which is in place of the mouth, muzzle, or teeth in ordinary quadrupeds, is much like a duck's bill, but broader. Four horny enameled plates, two in each jaw, serve for teeth, and with these it crushes the coverings of the small animals, or mollusks, on which it feeds. In the stuffed specimen the beak looks as if covered with dried black

leather, but in the living animal it is soft, rounded, and of a pink hue mottled with numerous small spots. This beak is supplied with nerves which render it sensitive as an organ of touch, thus enabling the animal to feel and smell the insects and creatures on which it feeds.

The body is rather long and compressed and thickly covered with glossy hair. The head is small and round, with small bright eyes. It has no external ears, but the internal ears are perfectly developed, and the hearing is acute. The legs are short, and the fore feet have each five toes which are furnished with strong claws for burrowing, and with these the little animal has been known to burrow a hole two feet long in ten minutes. There is also a connecting membrane for swimming, which extends beyond the claws, but can be folded back at will that it may not impede the use of the claws when they are required for burrowing. The hind feet are smaller and are webbed, but





not beyond the base of the claw. On the hind feet of the male is a spur, like that of a cock, which can be folded away out of sight. It is but imperfectly developed in the female. It was at one time thought that wounds inflicted by these spurs were very poisonous, but experiment has proved this not to be the case. The tail is strong, broad, flat, and about half the length of the body, but the hair which



covers it is longer and coarser, the under part of the tail, however, is almost devoid of it.

This strange little creature combines the habits of bird, beast and reptile, such as the lizzard. It seeks its food as the duck does in the water; burrows in the earth as a mole, hence the name Water-mole sometimes given it. A burrow twenty feet or more in length, at the end of which it makes an excavation large enough for a nest, which it lines with dried weeds. It has the growl of a

puppy, dresses its fur as a cat, and when going to sleep rolls or coils itself in a ball, with its tail doubled over its head, as if for protection. It sleeps through the day, and likes to eat at early dawn or at twilight in the evening.

It is easily alarmed, and at such times dives quickly beneath the water to hide from danger.

The scientific name, *Ornithorynchus*, is given to this small creature which possesses so many points of interest.

M. E. WHITTEMORE.

## EDITOR'S MISCELLANY.

### PERLEY'S REMINISCENCES.

One of the most readable books lately issued, and which is of interest to a large class of readers, is the *Reminiscences of Ben. Perley Poore*, published by Hubbard Brothers, of Philadelphia. Major Poore has enjoyed an enviable reputation as a newspaper writer for a great many years, and in this work he recounts, in the most vivid manner, a great variety of incidents connected with the life of nearly all the statesmen, government officers, and other public men and characters, that have been conspicuous at Washington and in the country for nearly sixty years past. The nation's darkest days, as well as some of its brightest, are included in the times of which these volumes treat, and they include as much of national romance as any equal period in any nation's history.

These volumes also give a clear insight into the private character, social life, jealousies, rivalries and peculiarities constituting the secret motives which largely influence even the greatest men in their public actions. This is a view seldom gained. Great men's names and deeds are familiar, but the men themselves, their mental habits, their appearance, their associates, their personal characteristics, are far less known. To these especially this work introduces its readers.

In a word, a verbal panorama is unrolled, in which is depicted life in Washington for nearly three score years, not merely pen portraits of political celebrities or accounts of political events, but the inner social life, the fashionable gayeties, the literary encounters, the jovial anecdotes, the Bohemian revelries, and the pleasant table-chat, which, when combined in a harmonious mosaic, give the reader a correct, yet entertaining and most amusing account of life in Washington.

### THE CENTURY.

The leading serial feature of the new volume of the *Century Magazine*, commencing with the November number and continuing through 1887, is to be the authorized *Life of Abraham Lincoln*, by his confidential Secretaries, John George Nicolay, (now Marshall of the Supreme Court of the United States,) and Col. John Hay, (lately Assistant Secretary of State of the United States.) This work, which was begun with the sanction and assistance of President Lincoln himself, and has been continued under the authority of the sole survivor of the President's immediate family, has been in active preparation during the past sixteen years.

The *Life of Lincoln* will be illustrated mainly by

means of the reproduction of documents and portraits of places, objects and persons.

### THE GRAPE.

Green's *Fruit Grower* for the present month is occupied with original articles and selections on the Grape. We regret to find that some of the original articles, though written with great vigor, are sadly lacking in practical experience, and contain statements which will be apt to mislead those seeking information on the subject of Grape culture. For instance, it is stated that the vineyards of Keuka Lake "yield about twenty-five tons to the acre," when it is well known that the average yield is two tons. Again, it is said that, "the bearing canes are usually about three in number," and that "from these bearing canes grow the shoots, about ten to each bearing cane." This makes about thirty "shoots" to each vine. The statement then follows that "each shoot bears from twenty to fifty bunches of Grapes." At a fair estimate, this would be a yield of fifty to a hundred and twenty-five tons to the acre. A little further calculation will show that, at ordinary prices a princely fortune awaits every Grape grower.

Such loose writing may be without any harmful design, but the least that can be said of it is that it is worthless. Though some of the original matter is good, as, also, is most of the selected, yet, misstatements, as noted above, are so gross as to throw discredit on the whole in the mind of the ordinary reader.

### COTTON WORM AND BOLL WORM.

Dr. Riley has prepared a large volume on these injurious pests of the Cotton plant, which has been issued by the Department of Agriculture. It is illustrated with colored plates and many engravings, and contains full instructions of the best methods of combatting the worms. It is a very valuable work for Cotton planters, and reflects great credit on Dr. Riley, who has been doing splendid service for his country and the world for many years, by the practical application of his entomological studies.

### INSECTS OF ONTARIO.

We have been pleased to receive the Sixteenth Annual Report of the Entomological Society of Ontario. It is a valuable report, and shows a lively interest in the society.

### THE MICHIGAN HORTICULTURIST.

The *Michigan Horticulturist*, which completed its first year in August, has changed its name to *American Horticulturist*.